California Regional Water Quality Control Board
North Coast Region

Monitoring and Reporting Program No. R1-2003-0119

for

THE PACIFIC LUMBER COMPANY, SCOTIA PACIFIC COMPANY LLC,
AND SALMON CREEK CORPORATION
P.O. Box 37
Scotia, CA 95565

FRESHWATER CREEK
Humboldt County

INTRODUCTION

This Monitoring and Reporting Program (MRP) requires instream water sample collection at selected stream crossings. However, activities on the Timber Harvest Plans (THPs) covered by Board Order Number (Order No.) R1-2003-0119 have commenced or will commence shortly. There will not be an opportunity to collect pre-project instream water quality data against which to assess impacts resulting from the timber harvesting and related activities covered by Order No. R1-2003-0119. Therefore, at this time, this MRP does not require instream water quality monitoring specifically associated with potential discharges from timber harvest units. Instream data collected for other purposes within the watershed, such as for TMDL monitoring, monitoring for THP 1-01-201 HUM, or for future THPs not covered by Order No. R1-2003-0119, may be considered, where applicable, in evaluating specific instances of noncompliance.

OBJECTIVES

The objective of monitoring conducted under this monitoring program shall be to assess and demonstrate compliance with Order No. R1-2003-0119. Where noncompliance is identified, this MRP specifies that the Discharger notify the Regional Water Board of the noncompliance and subsequently report any measures taken to correct the noncompliance.

I. MONITORING

A. Stream Crossing Monitoring and Quantitative Assessment of Sediment Control Devices

1. Station establishment

a. The Discharger shall establish stations at various stream crossings and sediment control devices identified by Regional Water Board staff.

b. For each station, within 30 days of identification by Regional Water Board staff, the Discharger shall establish monitoring stations. Monitoring stations shall consist of a pair of sampling points: one upstream and one downstream of the watercourse crossing or sediment control device. The upstream and downstream sampling points at each monitoring site shall be designated by the following naming convention: at monitoring location WQ-1, the upstream sampling point shall be identified as WQ-1u, and the downstream sampling point shall be identified as WQ-1d, for example.

c. For the purposes of watercourse crossing monitoring, "upstream" means at a sufficient distance up slope, within the stream channel, to eliminate the influence of any road-related runoff and "downstream" means at a sufficient distance down slope, within the stream channel, to allow complete mixing of road-related runoff.

For the purposes of sediment control device monitoring, "upstream" and "downstream" points should be located immediately adjacent to the up- and downstream sides of the device to be assessed, so as to minimize the potential for additional influences.

2. Sampling Parameters:
Sampling shall be conducted according to the following specifications:

Location	**Parameter**	**Units**	**Sampling Method**	**Sampling Frequency**
TBA	Turbidity	NTU	Grab Sample	Upon Triggering Event

3. Sampling Schedule and Frequency:

a. The Discharger shall initiate grab sampling for each upstream-downstream pair of sampling points upon identification and establishment of each station according to the following specifications:

i. Samples shall be collected within 24 hours of the occurrence of a significant rainfall event, nearest to the peak of the event as feasible.

ii. A significant rainfall event is defined as a storm event producing greater than 1.0 inch of rain within a 24-hour period as measured at the Eureka National Weather Service Station or using another method determined by the Regional Water Board staff and the Discharger to be appropriate. A significant rainfall event is considered terminated after two consecutive 24-hour periods with less than 0.2 inches of rain.

iii. No more than ten significant rainfall events shall be sampled annually[1] with the following exception: storms of 3.0 inches or greater shall be sampled regardless of the number of storms that have previously been sampled.

iv. If conditions for grab sampling are unsafe, the conditions shall be documented in a written log and sampling shall resume as soon as conditions are safe. If personnel are unavailable due to conditions such as official holidays, these conditions shall also be documented and sampling shall resume as soon as personnel are available.

b. At each road segment monitoring location, the Discharger shall conduct watercourse crossing inspections according to the following specifications:

[1] For purposes of this MRP, "annually" refers to water year (i.e., October 1 - September 30).

i. Watercourse crossing inspections shall be conducted at each location where a difference in turbidity of 20% or greater is detected between the upstream and downstream sampling points associated with the watercourse crossing.

ii. Inspections shall be conducted during the next significant rainfall event following the detection, nearest to the peak of the event as feasible. Road segment monitoring locations associated with watercourse crossings identified above shall be limited to the road segments draining (via overland flow or road drainage ditch) to the associated watercourse crossings and to the portion of the hillslope which drains to those road segments.

iii. If conditions for conducting watercourse crossing inspections are unsafe, the conditions shall be documented in a written log and inspections shall resume as soon as conditions are safe. If personnel are unavailable due to conditions such as official holidays, these conditions shall also be documented and inspections shall resume as soon as personnel are available.

c. At each sediment control device monitoring location, the Discharger shall conduct an inspection each time grab samples are collected at the monitoring location per I.A.3.a.

4. Sampling/Inspection Protocols and Procedures

a. For each stream crossing and sediment control device station, the Discharger shall establish a field method by which samples shall be obtained from the same locations in a repeatable fashion. For example, flagging or marking of each sampling point may be done to direct field staff to the sampling locations.

b. The Discharger shall measure the turbidity of each grab sample within 48 hours of the time at which it was collected using a Nephelometer capable of measuring turbidity to within ±2 percent for turbidities within the range of 0 to 2000 NTU, while following the Quality Assurance/Quality Control (QA/QC) Program described in Item D below.

c. Watercourse crossing inspections shall include, but not be limited to, mapping, photographing, and describing in a written log all sediment sources at monitoring locations that have discharged or have the potential to discharge soils to watercourses or to contribute to instream turbidity. Sediment sources to be identified shall include, but not be limited to, landslides, debris flows, and erosion from hillslopes, stream banks, roads, skid trails, and watercourse crossings. Sediment sources shall be identified as having likely been caused by either natural circumstances or anthropogenic activities. Watercourse crossing inspections shall specifically identify and describe any new sediment sources or changes in the conditions of the sediment sources documented previously during hillslope and/or watercourse crossing inspections.

d. Sediment control device inspections shall include, but not be limited to, photographing and describing in a written log observations of the installation and operation of the sediment control device, including:

i. assessment of the device to ensure that it is properly installed and functioning properly.

ii. estimate of flows entering and leaving the device.

iii. photographs of device from upstream looking down at the device and from downstream looking up at the device. Photographs should be taken from no more than 15 feet away from the device.

e. The Discharger shall notify the Regional Water Board Executive Officer by telephone as soon as a detection meeting the criteria described in I.B.3.b.i., above, occurs. In addition, the Discharger shall provide written confirmation to the Regional Water Board Executive Officer of detection within 2 weeks of the detection. If such an occurrence is attributable to timber harvest and related activities in the Elk River watershed and is to be remedied through the application of measures in the Discharger's HCP or through measures in the California Forest Practice Rules (FPRs), the remedy shall be described in the notification. Likewise, if the occurrence is to be remedied by means other than measures in the HCP or the FPRs, the Discharger shall submit a site-specific sediment control plan describing those means to the Regional Water Board Executive Officer for review and approval.

B. Sediment Saving Site Evaluation

Prior to October 1, 2003 and each year thereafter, the Discharger shall provide Regional Water Board staff with a list of sediment saving sites to be worked on between October 1 and May 1 of each winter and the proposed work schedule. For sites identified by Regional Water Board staff, the Discharger shall do the following:

1. Prior to commencing work at each site, the Discharger shall compile the following information:

a. Pre-project longitudinal profile from 25 feet upstream of site boundary to 25 feet downstream of site boundary and stream channel cross sections at the upstream and downstream boundaries and at the project mid-point.
b. Measurement of estimated volume of sediment to be removed.
c. Photographs of site taken instream looking upstream at the downstream boundary and downstream at the upstream boundary.

2. During work at each site, the Discharger shall document the volume of soil removed from the site.

3. Following completion of work at each site, the Discharger shall:

a. Develop a longitudinal profile from 25 feet upstream of site boundary to 25 feet downstream of site boundary and stream channel cross sections at the upstream and downstream boundaries and at the project mid-point.
b. Take photographs of the site looking upstream at the downstream boundary and downstream at the upstream boundary.
c. Collect grab samples up- and downstream of the project site 24, 48, and 96 hours following completion of work and during the first significant storm following completion of work. Sampling stations shall be established in accordance to I.A.1.b., above, and shall be sampled and analyzed in accordance with I.A.2, I.A.3., and I.A.4. The Discharger shall notify Regional Water Board Executive Officer in accordance with I.A.4.d, above, in the event of a detection meeting the criteria in I.A.3.b.i.

C. Quality Assurance and Quality Control (QA/QC) Program

1. The Discharger shall develop a comprehensive QA/QC Program for the monitoring activities to be implemented. The QA/QC Program shall address all aspects of the monitoring program and shall contain, at a minimum, but not be limited to:
   a. Standard procedures for the establishment of repeatable sampling locations;
   b. Standard operating procedures for each field method and piece of equipment used;
   c. Standard operating procedures for each laboratory method and piece of equipment used;
   d. Standard reporting procedures;
   e. Measures for quality assurance associated with monitoring and reporting procedures;
   f. Measures for quality control associated with monitoring and reporting procedures;
   g. A training program for personnel conducting monitoring activities; and,
   h. Measures for adapting the QA/QC Program, when necessary.

2. Prior to November 15, 2003, the Discharger shall develop the QA/QC Program and submit it to the Regional Water Board Executive Officer for approval. Following approval of the QA/QC Program, the Discharger shall implement the procedures and control measures specified therein.

3. By November 15, 2003, the Discharger shall train all personnel who may conduct monitoring or other activities associated with this MRP according to the provisions of the approved QA/QC Program.

4. Following implementation of the approved QA/QC Program, the Discharger may propose changes to the procedures and control measures specified in the QA/QC Program as necessary, and submit the changes to the Regional Water Board Executive Officer for approval. Following approval of changes to the QA/QC Program, the Discharger shall document such changes and implement the new procedures and control measures immediately.

II. REPORTING

A. Monthly Reports

1. The Discharger shall submit monthly reports to the Regional Water Board Executive Officer by the 15th calendar day of each month for the previous month's reporting period. The reporting period is defined as a calendar month. The reports shall present information collected under Monitoring Sections A. and B., above, and shall include, but not be limited to the following information:

    a. The date, location and time of each sample collected/measured;
    b. The individual(s) who performed the sample collection/measurement;
    c. The date, location, and time of sample analyses;
    d. The individual(s) who performed the analysis;
    e. Measured and/or analytical results for all water quality samples collected and stage/ streamflow measurements taken during the reporting period;
    f. Daily rainfall totals for each day during the reporting period;
    g. Disclosure of possible sources of error;
    h. Observations made by field staff;
    i. If non-compliance with any of the covered THPs occurs and is adversely affecting or has the potential to adversely affect water quality, such an occurrence shall be described in writing.

2. Monitoring reports shall be arranged in the format(s) approved by the Regional Water Board Executive Officer, and shall conform to the reporting procedures and control measures specified in the approved QA/QC Program. Complete reports shall be submitted to the Regional Water Board Executive Officer in hardcopy form. All data shall also be submitted in electronic form.

3. Copies of the field inspection logs, notes, mapping, photographs, etc. described in Items I.A.3.a.iv., I.A.3.b.iii, I.A.4.c., I.A.4.d., and I.B. shall be submitted as part of each monthly report.

4. For any corrective work completed per Item I.B.4.d. during the reporting period, a completion report shall be submitted as part of each monthly report. Each completion report shall include a detailed description of any erosion control activities taken during the previous month (and any proceeding months not already addressed in a monthly report), including a map of the location(s) and the date(s) erosion control actions were taken.

5. Analytical results that reveal detections meeting the criteria described in Item I.A.3.b.i. that are attributable to timber harvest and related activities (including road construction) specified in any of the covered THPs shall be summarized and discussed in each monthly report. The Discharger shall notify Regional Water Board staff by telephone within 24 hours of any such exceedences.

B. Quarterly Reporting

Beginning April 15, 2004, and every quarter thereafter (April 15, July 15, October 15, January 15), the Discharger shall submit a completed copy of the attached Compliance Self-Evaluation Form and associated log sheets.

Ordered by: _____
Catherine Kuhlman
Executive Officer

November 5, 2003

(Q:/routine/agenda/nov03/PL_MRP_Freshwater_Creek)